

# **Peterson Road**

# **Innovative Stormwater**

# **Management**

# **Techniques**

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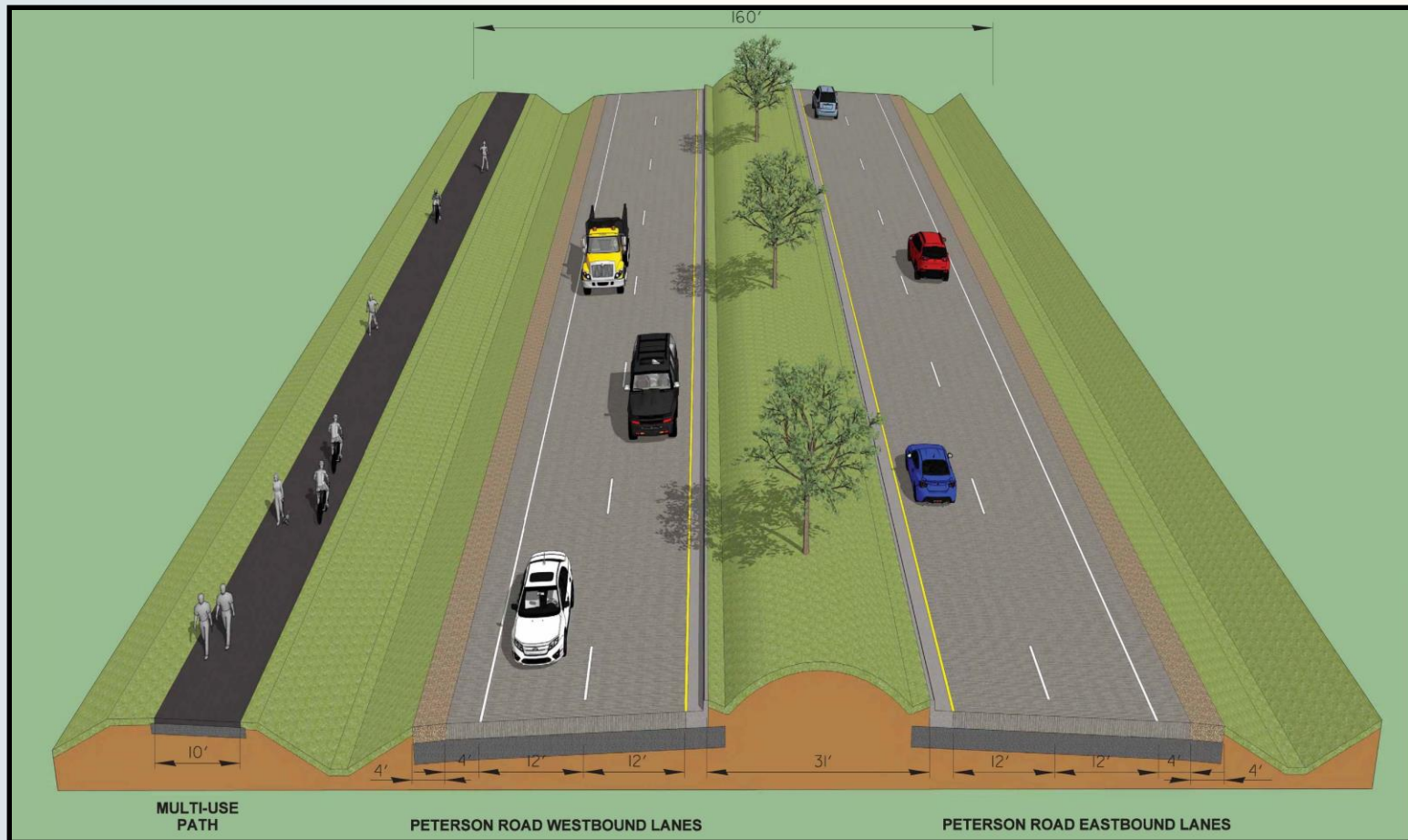
# Peterson Road

## IL Route 83 to West of Alleghany Road



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# **Peterson Road**

## **IL Route 83 to West of Alleghany Road**

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- 65 Acre Site
- Basin 1 – 3.83 Acre-feet
- Basin 2 – 2.24 Acre-feet
- Basin 3 – Water Quality Basin
- 10,400 Feet of Infiltration Ditches
- 13,000 Cubic Yards of Compost
- 5 Median Rain Gardens



# Featured Elements

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- Detention Ponds
- Use of Compost
- Infiltration Ditches
- Rain Gardens

# Detention Pond Design



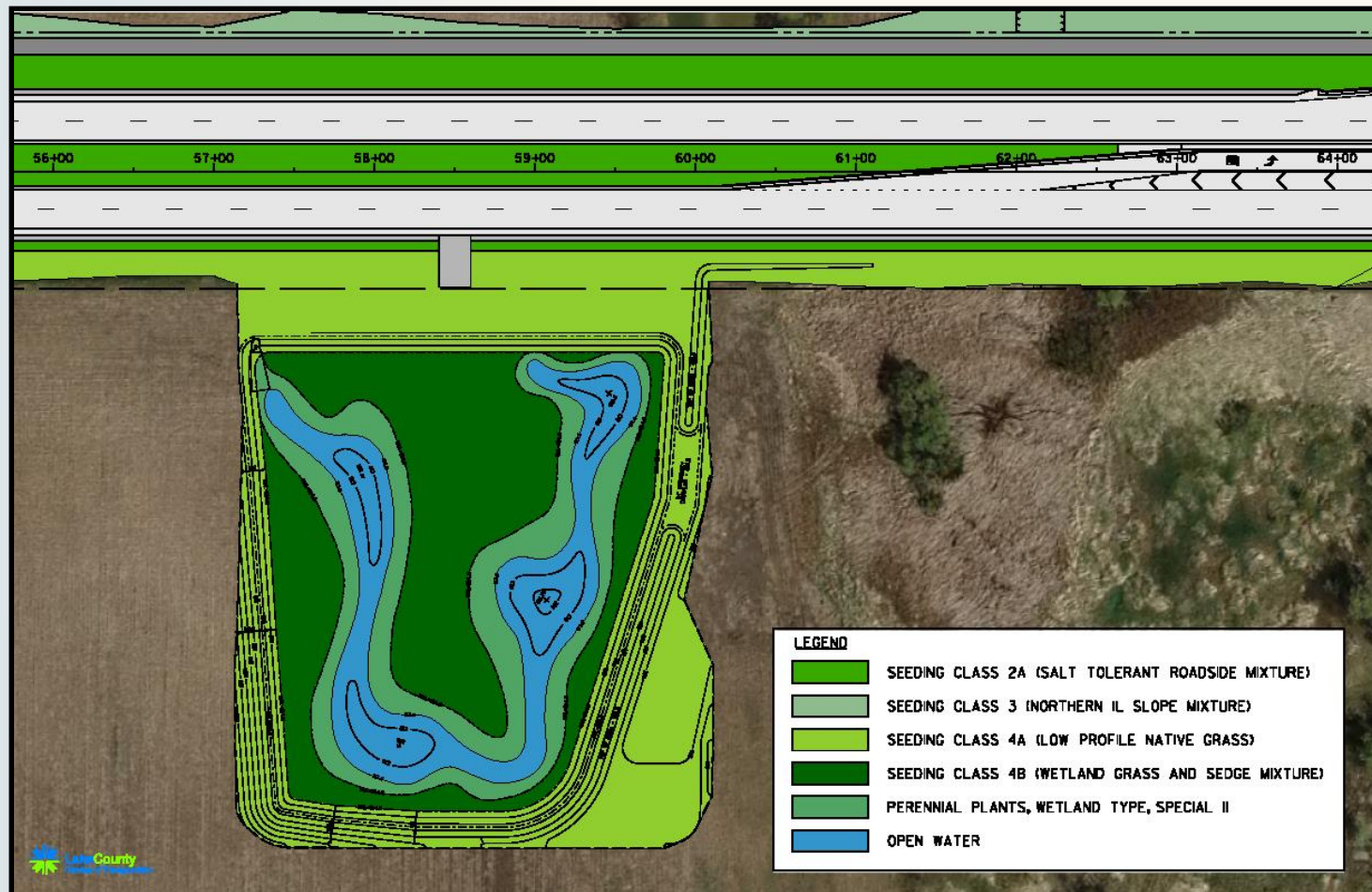
# Detention Pond Design

- Contoured shape
- Micro-pools
- Mix of wetland seed and wetland plugs
- Native grasses on the slopes

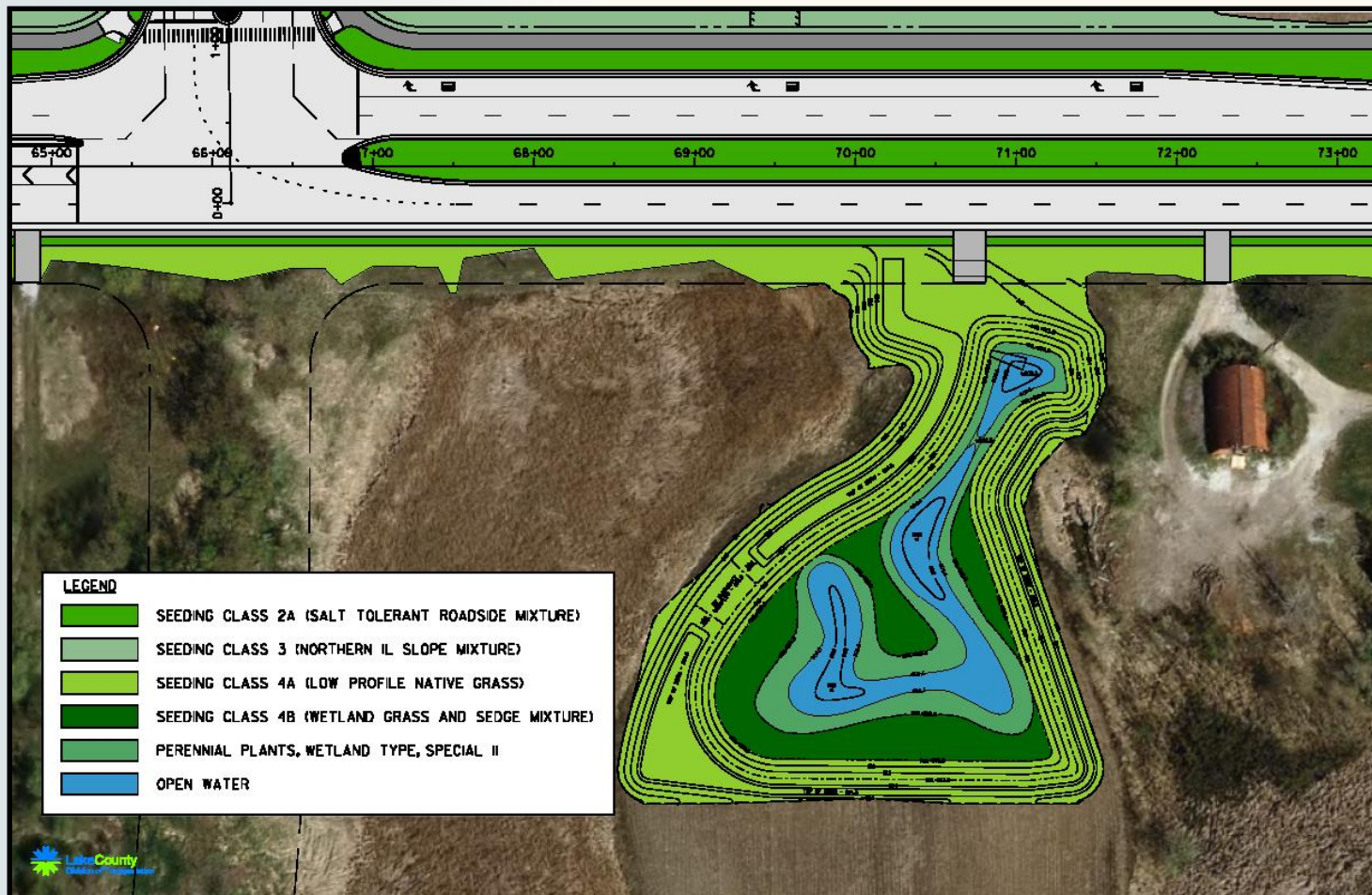




# Detention Pond Design



# Detention Pond Design



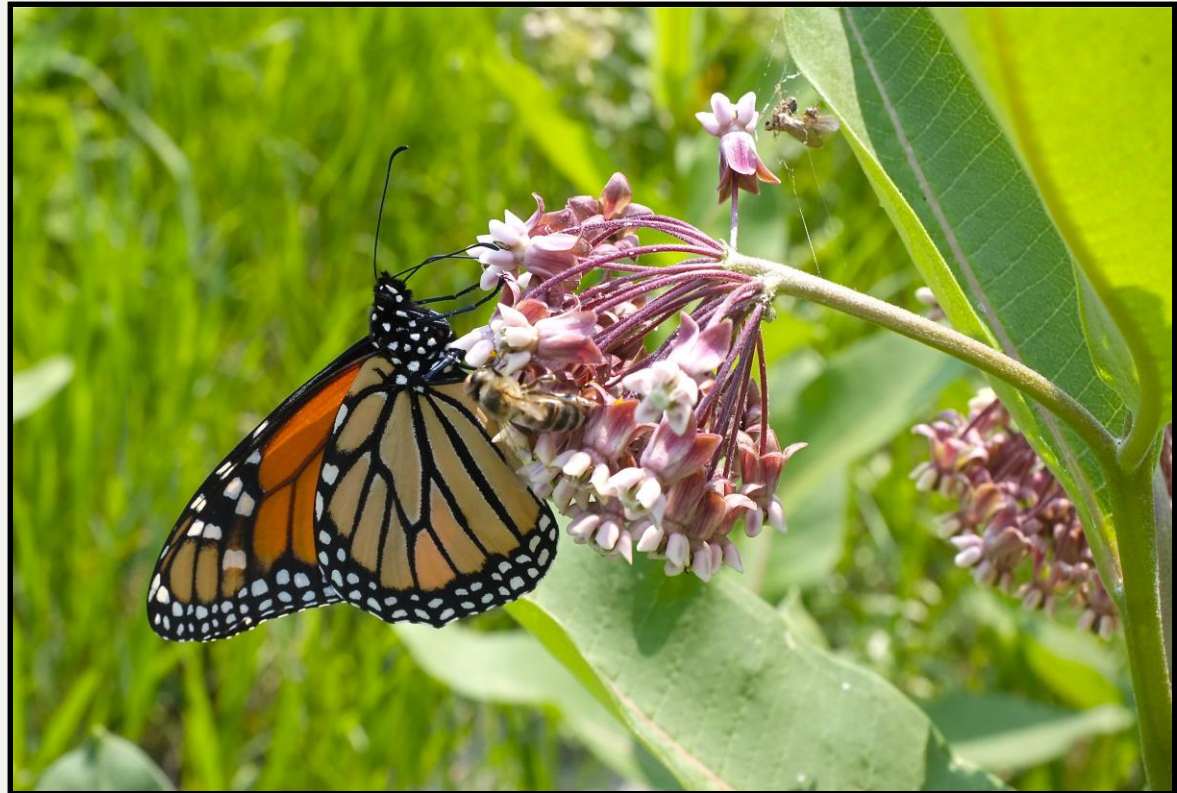


# Detention Pond Design



# Detention Pond Design

- Modified IDOT's  
4B Seed Mix  
to include  
Swamp  
Milkweed





# Detention Pond Construction



- Incorporation of compost
- Planting of plugs



# Detention Pond Construction



Pickerel Weed





# Detention Pond Construction

- Plant Establishment





# Detention Pond Construction

- Monitoring and Maintenance



# Use of Compost

- Holds 10x its weight in water
- Reduces runoff
- Excellent growing medium
- No maintenance to achieve runoff reduction





# Use of Compost

- Incorporation was simple



# Use of Compost

- Quick establishment of plants and seed mixes



# Use of Compost



- Leachate



# Use of Compost

- Incorporation after it rained was not as simple



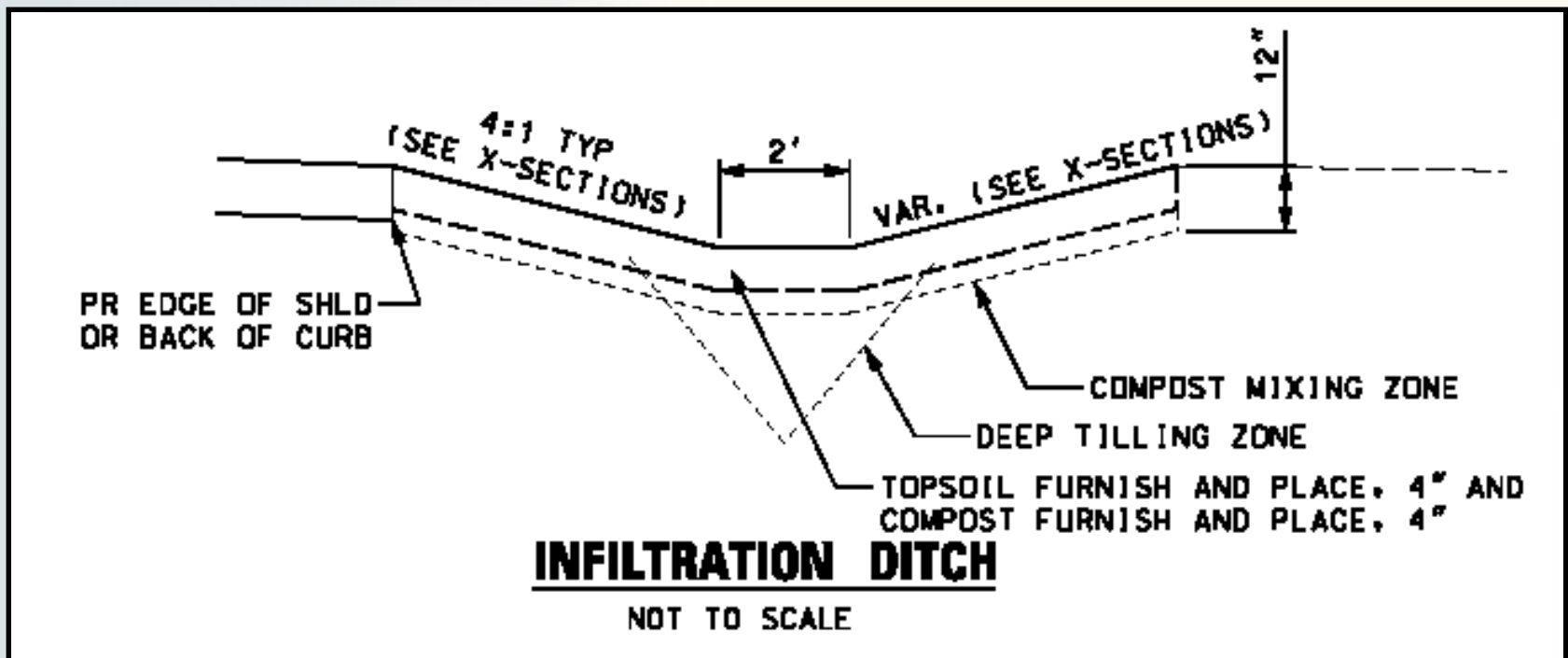
# Infiltration Ditches

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- Inspired by Dane County Land Conservation Department Study
- Test Plot amended with Deep Tilling, Chisel Plowing and Compost
- 88% Runoff Reduction from the Control Plot – Seed and Mulch Only

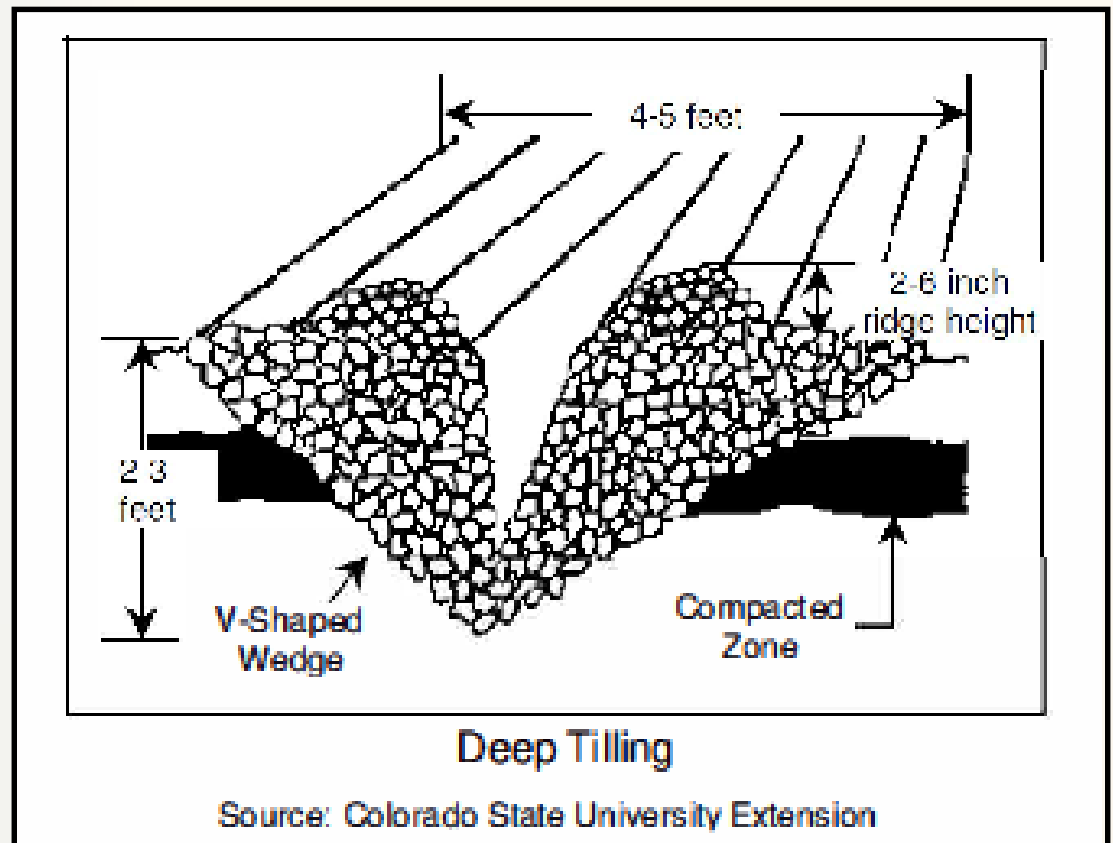
# Infiltration Ditches

- Deep till ditch bottom
- Incorporate compost



# Infiltration Ditches

- Deep tilling performance



# Infiltration Ditches

- Deep Tilling Example





# Infiltration Ditches



# Median Rain Gardens



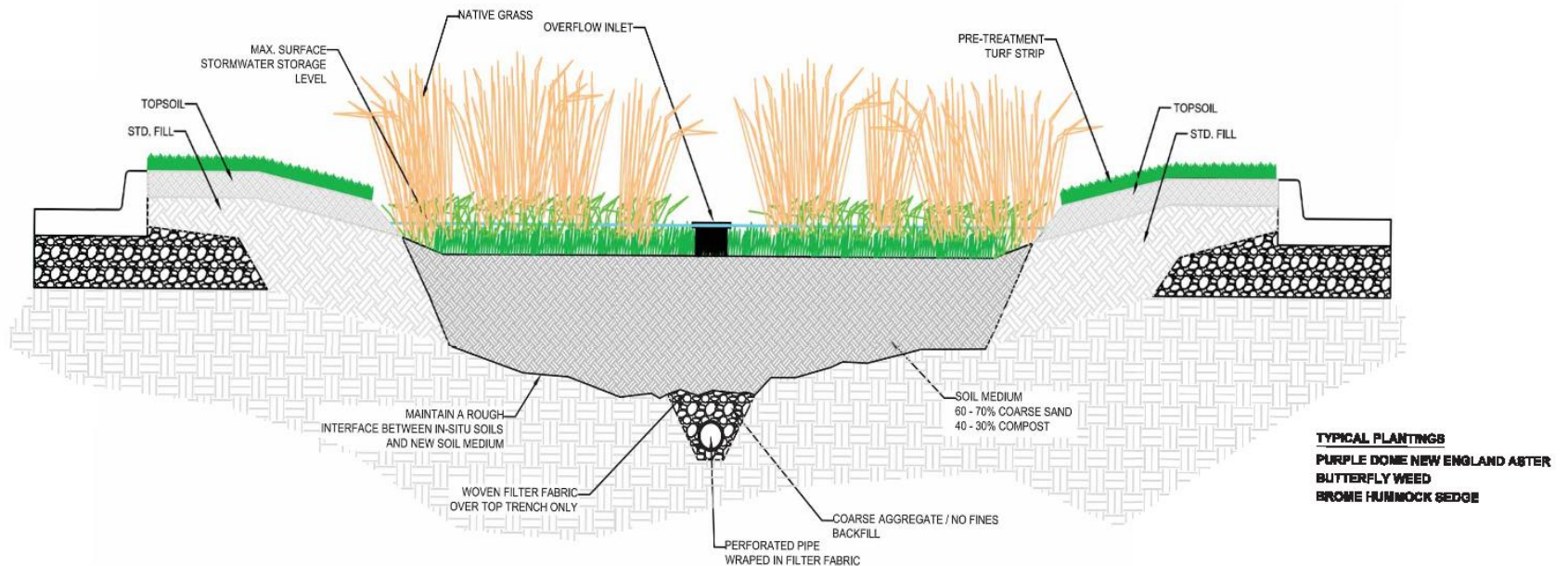


# Median Rain Gardens





# Median Rain Gardens



**MEDIAN RAIN GARDEN DETAIL**

# Median Rain Gardens

- Rain garden runoff was intercepted by the aggregate subgrade
- Washed out some side slopes





# Median Rain Gardens

Purple Dome Aster





# Thank You

